

Title (en)
Copper alloy sheet for electronic parts

Title (de)
Bleche aus Kupferlegierung für Elektronikbauteile

Title (fr)
Feuillard en alliage de cuivre pour composants électroniques

Publication
EP 0949343 A1 19991013 (EN)

Application
EP 99400634 A 19990315

Priority

- JP 26755798 A 19980922
- JP 10000798 A 19980326

Abstract (en)
A copper alloy sheet comprises 0.4 to 2.5 wt% of Ni, 0.05 to 0.6 wt% of Si, 0.001 to 0.05 wt% of Mg, and the balance being Cu and inevitable impurities wherein an average grain size in the sheet is in the range of 3 to 20 μm and a size of an intermetallic compound precipitate of Ni and Si is in the range of 0.3 μm or below. If necessary, the sheet may further comprise one or more of 0.01 to 5 wt% of Zn, 0.01 to 0.3 wt% of Sn, 0.01 to 0.1 wt% of Mn, and 0.001 to 0.1 wt% of Cr. It is preferred that when an X-ray diffraction intensity from $\bar{\alpha}200$ plane in the surface of said sheet is taken as I_{200} , an X-ray diffraction intensity from $\bar{\alpha}311$ plane is taken as I_{311} , and an X-ray diffraction intensity from $\bar{\alpha}220$ plane is taken as I_{220} , the following equation is satisfied <MATH>

IPC 1-7

C22C 9/06

IPC 8 full level

H01L 23/48 (2006.01); **C22C 9/04** (2006.01); **C22C 9/06** (2006.01); **C22F 1/00** (2006.01); **C22F 1/08** (2006.01); **H01H 9/02** (2006.01)

CPC (source: EP KR US)
C22C 9/06 (2013.01 - EP KR US)

Citation (search report)

- [X] EP 0501438 A1 19920902 - MITSUBISHI SHINDO KK [JP]
- [X] DE 4319249 A1 19931216 - MITSUBISHI SHINDO KK [JP]
- [A] US 4594221 A 19860610 - CARON RONALD N [US], et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 16, no. 560 (C - 1008) 2 December 1992 (1992-12-02)
- [X] PATENT ABSTRACTS OF JAPAN vol. 17, no. 625 (E - 1461) 18 November 1993 (1993-11-18)
- [X] PATENT ABSTRACTS OF JAPAN vol. 16, no. 234 (C - 945) 29 May 1992 (1992-05-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 13, no. 182 (C - 591) 27 April 1989 (1989-04-27)

Cited by

EP1325964A4; EP2128282A4; CN104334759A; EP1997920A3; US2013014861A1; US9005521B2; EP1873266A4; CN104831113A; CN105518166A; EP1964937A1; US6664671B2; EP2221391A4; EP1967596A1; US6699337B2; EP2230323A1; EP2248922A1; EP1538229A4; US8784580B2; US7648601B2; US7172662B2; US11021774B2; US9994933B2; WO03076672A1; US8287669B2; US7090732B2; US6893514B2

Designated contracting state (EPC)

DE FI FR

DOCDB simple family (publication)

EP 0949343 A1 19991013; EP 0949343 B1 20060920; DE 69933255 D1 20061102; DE 69933255 T2 20070906; JP 3739214 B2 20060125; JP H11335756 A 19991207; KR 100336173 B1 20020509; KR 19990078298 A 19991025; US 6334915 B1 20020101

DOCDB simple family (application)

EP 99400634 A 19990315; DE 69933255 T 19990315; JP 26755798 A 19980922; KR 19990010460 A 19990326; US 27233699 A 19990319